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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/457,003	12/08/1999	EDWARD HO	169.1327-CIP	7190

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NEW YORK, NY 10112

EXAMINER

DESIRE, GREGORY M

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 08/27/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

7

**Office Action Summary**

Application No.

09/457,003

Applicant(s)

HO ET AL.

Examiner

Gregory M. Desire

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/326,561.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5 and 6. 6) ☐ Other:

**DETAILED ACTION**

***Claim Objections-***

1. Claim 17 is objected to because of the following informalities: It appears claim 17 should depend on claim 11. The examiner will treat as such, when writing the non-final rejection. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Darrell et al. (6,188,777).

Art Unit: 2621

Regarding method, apparatus and computer medium claims 1, 11, 21, 31, 35, 45, 53, 54, 56, 60, 61 and 65 Darrell et al discloses,

(i) Segmenting said image into a plurality of regions having substantially homogenous colour (Image is segmented in the color segmentation block, note fig. 2 block 230);

(ii) Testing the color of each said regions determined in step (i) to determine those regions having predominantly skin colour (classification score wherein skin value is 1 and nonskin and col. 7 line 11-20, region with value 1 is predominantly skin colour);

(iii) Subjecting only the regions determined in step (ii) to further facial feature analysis whereby said region created in step (i) not having a predominantly skin colour are not subjected to said further feature analysis (note col. 7 lines 44-48, skin color of target range is searched, thus restricting color regions outside the range.);

Regarding method, apparatus and computer medium claims 2, 12, 22, 36-38 and 42-44 Darrell et al discloses,

A colour distribution model utilizing previous sampled data (note col. 7 lines 12-14, input data is used for model.)

Regarding method, apparatus and computer medium claims 3, 13, 23 and 46 Darrell et al discloses,

Using chromatic colours derived from RGB values (note col. 6 lines 65-67, cite RGB)

Regarding method, apparatus and computer medium claims 4, 14 and 24 Darrell et al discloses,

Wherein image is from a digital camera (note col. 6 line 63, cites digital camera)

Regarding method, apparatus and computer medium claims 5, 15, 25, 39-41 and 59 Darrell et al discloses,

Wherein a particular image is selected from the group consisting of images taken with use of a flash and images taken without use of a flash (image different brightness values note col. 8 lines 53-57)

Regarding method, apparatus and computer medium claims 6, 16, 26 and 55 Darrell et al. discloses

Wherein the facial analysis is independent of facial colour. (Note col. lines 18-22, face analysis is dependent on statistical appearance)

Regarding claims 7, 17 and 27 Darrell et al discloses,

Wherein further facial analysis comprises edge detection (note col. 8 lines 28-30, face region based on bounding area)

Regarding method, apparatus and computer medium claims 8, 18 and 28 Darrell et al discloses,

Wherein said edge detection utilizes an edge detection filter comprising second derivative gaussian function in a first direction substantially orthogonal to the edge to be detected and a gaussian function in a second direction substantially orthogonal to said first direction (note col. lines 22-23, suggest a gaussian function).

Regarding method, apparatus and computer medium claims 9, 19 and 29 Darrell et al discloses,

Wherein further facial analysis is carried out utilizing the spatial relationship of detected edges (note col. 8 lines 39-45, face detection based on location of head).

Regarding method, apparatus and computer medium claims 10, 20 and 30 Darrell et al discloses,

Growing a region by determining the average color of a group of pixels, determining the difference between the average color of the group and the average color of pixels adjacent to the group, and if the color difference is less than a predetermined threshold, adding the adjacent pixels to the group (note col. 7 lines 17-21)

Regarding method claims 32-34 and 62-64 Darrell discloses,

Wherein each image capture condition is acquired at a time said image is captured (note col. 10 lines 45-50).

Regarding method claim 47 Darrell et al discloses,

Wherein said binary map comprises a percent of the skin color pixels that were identified in said previously sampled facial image data (note col. 7 lines 18-19, classification score binary value identifies skin color pixels).

Regarding method claim 48 Darrell et al discloses,

Wherein one of said pixels is classified as being skin colour if the colour representation vector corresponding occurs within said binary map (note skin colour is classified a binary value 1 col. 7 line 19).

Regarding method claims 49-51 Darrell et al discloses,

Wherein each of said pixels is classified as being skin colour if the frequency and probability of the color representation vector corresponding thereto exceeds a predetermined threshold (note col. 7 lines 50-53).

Regarding method claim 52 Darrell et al. discloses,

Wherein said regions are geometrically divided from said image (note fig. 2 block 210, computation segmentation)

Regarding method claims 53 and 54 Darrell et al discloses,

Wherein said regions are formed using a region growing method based upon difference colour (note col. 8 lines 47-51, color range).

Regarding method claims 57 and 58 Darrell et al discloses,

Wherein each condition is acquired at a time said image is captured (note col. 10 lines 45-50, identification is based at time t).


### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (703) 308-9586. The examiner can normally be reached on M-F (8:30-6:00) Second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreaux can be reached on (703) 305-4706. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 308-5937 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Gregory M. Desire  
Examiner  
Art Unit 2621

  
JOSE L. GOUSO  
PRIMARY EXAMINER



G.D.  
August 21, 2002